THIS OPINION WAS NOT WRITTEN FOR PUBLICATION

The opinion in support of the decision being entered today (1) was not written for publication in a law journal and (2) is not binding precedent of the Board.

Paper No. 20

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte STEPHEN P. CAPPS,
SHIFTEH KARIMI, and SARAH CLARK

Appeal No. 94-3636
Application 07/889,660[1]

ON BRIEF

Before HAIRSTON, KRASS, and BARRETT, Administrative Patent Judges.

BARRETT, Administrative Patent Judge.

DECISION ON APPEAL

[1] Application for patent filed May 27, 1992, entitled "Method For Searching And Displaying Results In A Pen-Based Computer System."

This is a decision on appeal under 35 U.S.C. § 134 from the final rejection of claims 1 and 5-14, all of the claims pending in the application. Claim 2-4 have been cancelled. Pursuant to a remand entered August 1, 1995 (Paper No. 18), to consider the rejection under 35 U.S.C. § 101 in view of proposed guidelines which issued as Examination Guidelines for Computer-Related Inventions, 1184 Off. Gaz. Pat. & Trademark Office 87 (March 26, 1996), the section 101 rejection has been withdrawn (Supp. Examiner's Answer entered April 12, 1996, Paper No. 19).

The invention is directed to a method and system for searching and displaying results of a string search in a pen-based computer system. As shown in figure 2, the computer has a screen 38 and a plurality of input buttons 23 including a number of dedicated function buttons, such as WHO (telephone book), WHAT (to-do list), and WHEN (a calender). These buttons represent corresponding files, where each file has one or more records contained therein. A FIND button is used to initiate a search for information. When the FIND button is depressed, a find line 56 appears for entering a string of characters to be searched. Figure 3 shows the screen after the search string "electrician" is entered and searched. Each button has a respective triangular-shaped indicator 60, 62, 64 located on the screen adjacent to a respective function button with the number in the indicator corresponding to the number of files found (hits) for the search string. Depressing one of the buttons presents the file entries containing the search string.

Claim 1 is reproduced below.[2]

1. A method of controlling a screen display with an input pointer to search the contents of a memory device for a pen-based computer system, where the contents of the memory device comprise one or more files, where each file comprises one or more records, and where each file has an associated file selection button provided as part of the computer system, comprising the steps of:

receiving a search string which has been written or selected on the screen display with the pointer;

searching the content of each searchable record of each file that is associated with a selection button in the memory device for the search string;

determining the number of hits in each file; and

displaying on the screen display a plurality of indicators, each having a corresponding file selection button, and each showing the number of hits in the file corresponding to the selection button.

The examiner relies on the following reference:

Kita et al. (Kita) 5,172,245 December 15, 1992
(effective filing date October 16, 1987)

Kita discloses an image storage and retrieval system using hierarchical category and sub-category menus. The data storage arrangement is shown in figure 5. The bit data storage region 82 stores primary information 82a such as image information. The code data storage region 81 stores secondary information, which is retrieval information for retrieving the primary information, and is

[2] Note that the copy of claim 1 in the amendment received October 4, 1993 (Paper No. 8), and the copy of claim 1 in the appendix to the appeal brief miscopies "comprising the steps of" from original claim 1 to "comprising the step of."

formed of areas 81a for storing broad sort names such as a primary menu, areas 81b for storing detailed sort names such as a secondary menu, and areas 81c for storing retrieval items (column 3, lines 35-45). Information is retrieved by an operator as shown in figure 6 (where the lower boxes 42-45 represent screen displays) in a manner that corresponds to information retrieval in a file cabinet (column 4, lines 29-42). Registration (initial storage) of information in the system is described, in part, as follows (column 6, lines 47-51, referring to figure 12): "the operator inputs secondary information formed by a title and a keyword corresponding to the primary information from a keyboard 1, and inputs a registration run command from the keyboard 1 at a step S35."

Claims 1 and 5-14 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Kita.[3] The examiner's rejection is stated in the Examiner's Answer, pages 10-11, and repeated in the Supp. Examiner's Answer, pages 4-5.

[3] Since Kita issued after the filing date of the subject application, the proper statutory basis for the rejection is 35 U.S.C. § 102(e), not § 102(b).

OPINION

We reverse.

After withdrawal of the rejection under 35 U.S.C. § 101, the claims stand grouped in two groups: (1) claims 1, 5, and 8-14; and (2) dependent claims 6-7. Claim 1 is taken as a representative claim of the first group. The examiner's statement that appellants have failed to present arguments in support of the separate groups (Examiner's Answer, page 2) is in error for the reasons stated by appellants (Reply Brief, page 3).

"Anticipation is established only when a single prior art reference discloses, expressly or under principles of inherency, each and every element of a claimed invention." RCA Corp. v. Applied Digital Data Systems, Inc., 730 F.2d 1440, 1444, 221 USPQ 385, 388 (Fed. Cir. 1984).

Appellants argue (Brief, page 8) that Kita does not teach a "pen-based computer system" (claim 1) with an input pointer or a "screen display coupled . . . which registers the position of a stylus" (claim 11). We agree with the examiner's finding that Kita's disclosure of input through a "tablet means" (column 3, line 61) meets these limitations since the puck of a tablet input device is broadly considered to be a pointer, pen or stylus. Claim 1 does not define "pen-based" to require a touch sensitive device or to require only a pen input. The alternative language "written or selected" in claim 1 permits the search string to be selected with the pointer and does not require that search string be written on the display. Claim 11 does not expressly require the stylus to write on the screen display; the display could register the position of the puck on the tablet.

Appellants argue that Kita fails to reasonably suggest the limitation of "searching the content of each searchable record of each file that is associated with a selection button . . . for the search string" (claim 1). The "content of each record" is said to refer to the body of data stored in each record (Brief, page 10). Appellants argue that Kita "searches only category headings or 'retrieval information' such as 'sort groups' and 'picture information'" (Brief, page 10), that "[u]nlike the claimed invention, it does not search the content of the items held in memory (picture information in the case of Kita et al.)" (Brief, page 10), and that Kita shows "that the 'retrieval information' is stored separately from the content (Figs. 5, 8, and 11 show this and the supporting written description indicates it more clearly)" (Brief, page 10).

The examiner finds the searching step at "figure 13A and the descriptive material in column 3, line 64 through column 4, line 8" (Examiner's Answer, page 14) and at "column 7, lines 12-29" (Examiner's Answer, pages 14-15). The examiner finds the cover search key 101 and page search key 104 to correspond to the selection button (Examiner's Answer, page 15).

We do not agree with the examiner's analysis. Kita does not search contents for a search string. A "string" is a finite sequence of alphanumeric characters. Manifestly, a string search is inconsistent with the image information stored by Kita. Kita stores and retrieves images using hierarchical category and sub-category menus. While the menu items in the broad sort name menu 81a are strings of characters, Kita does not search contents for that string. The menu items lead to sub-category menu items as in menu 81b and then to a list of files as in data area 81c. The files are categorized by titles and keywords input by the operator (column 6, lines 47-51). The files are

retrieved by addresses attached to these titles and keywords in the secondary information storage region (e.g., column 7, lines 23-27), not by a string search on the contents of the image information which, of course, is impossible. The operator searches each menu to input the sort name and the CPU reads out detailed names in the next lower menu until at last the picture information serving as primary information is read out (column 3, line 49 to column 4, line 23). The CPU does not perform a string search, but merely reads out the selected next menu or image file. Kita does not search the object picture information for occurrences of the strings "Electronic File" or "Research Data." These strings are titles or keywords associated with an object picture by the operator during registration (initial storage).

Figure 13A relied on by the examiner shows the steps for retrieval of the covers of reduced primary information. The operator chooses a cover search with cover search key 101 and manually searches forward through the covers using the next cover search key 102 or backward through the covers using the forecover search key 103 (column 7, line 12 through column 8, line 1). This corresponds to a person manually flipping through the covers of files, which is clearly not a string search. The examiner errs in finding that in response to operation of a key (Examiner's Answer, page 15): "The search of the content of each searchable record of each searchable record of each file that is associated with the search key is then conducted." The keys just go to the next (or previous) cover or the next (or previous) page of object picture primary information. There is no searching of contents of the primary information for a search string.

We also disagree with the examiner's finding that the search "keys correspond to applicant's selection button, and like appellants' claimed invention are found in the memory device" (Examiner's Answer, page 15). The cover search keys 101-103 and page search keys 105-106 are used by the operator to manually turn the files to retrieve the desired picture information. The files are not associated with these keys as recited in claim 1.

Appellants argue that Kita does not search "the content of each searchable record of each file" (emphasis added) (claim 1) because Kita "searches only certain records in memory (i.e. those within the narrowest category selected by the user)" (Brief, page 11). We do not see where the examiner responds to this argument. The examiner states that "the content of each searchable record of each file that is associated with the search key is then conducted" (Examiner's Answer, page 15), but does not explain how this happens in Kita. As previously noted, Kita does not search the content of the image file for a search string. Also, Kita is a hierarchical classification system which means that the number of relevant object picture files decreases as the operator searches (the system does not search) the category and sub-category menus. This is not a search of all files.

Appellants further argue that Kita fails to reasonably suggest the limitation of "displaying on the screen display a plurality of indicators, each having a corresponding file selection button, and each showing the number of hits in the file corresponding to the selection button" (claim 1). Appellants argue that figure 6 relied on by the examiner "fails to show the results of a find search" (Brief, page 11) and "it does not list files whose content matched a search string and it fails to indicate a particular selection button in which a search 'hit' was found" (Brief, page 11).

The examiner points to figure 6 and states that "Appellant should refer to the descriptive portion found in column 6 [sic, 4], lines 9-42 of Kita et al. which continuously refer to the CRT display" (Examiner's Answer, page 15).

The examiner does not explain what in figure 6 corresponds to the claimed "indicators," "corresponding file selection button," or where the indicators "show[] the number of hits in the file corresponding to the selection button," which makes our job of reviewing the factual correctness of the rejection very difficult. Since Kita does not search the files for a search string, Kita does not determine the number of hits or display the number of hits. For this reason, we find that the "displaying" limitation is not anticipated by Kita. As previously discussed, the examiner erred in finding that the cover and page search "keys correspond to applicant's selection button" (Examiner's Answer, page 15). Nothing in figure 6 or the discussion thereof discloses indicators corresponding to the cover and page search keys (the selection buttons according to the examiner) or indicators with numbers as recited.

The anticipation rejection of claims 1 and 5-14 is reversed because Kita fails to suggest the following limitations of representative claim 1: (1) "searching the content of each searchable record of each file that is associated with a selection button . . . for the search string"; and (2) "displaying on the screen display a plurality of indicators, each having a corresponding file selection button, and each showing the number of hits in the file corresponding to the selection button."

REVERSED

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Administrative Patent Judge )
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) BOARD OF PATENT
ERROL A. KRASS ) APPEALS
Administrative Patent Judge ) AND
) INTERFERENCES
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